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IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF UTAH
CENTRAL DIVISION

SME STEEL CONTRACTORS, a Utah Corporation, CORE-BRACE, a Utah Limited Liability Company,

Plaintiffs,

v.

SEISMIC BRACING, a Utah Limited Liability Company, ANDREW HINCHMAN, an Individual,

Defendants.

Case No. Civil No. 2:17-cv-00702-RJS

DEFENDANTS' MOTION FOR PARTIAL SUMMARY JUDGMENT

Introduction and Relief Sought:

Plaintiffs SME Steel Contractors ("SME" or "Plaintiff") and Core-Brace file the initiating complaint on July 17, 2017 against Defendants Seismic Bracing Company, LLC and Andrew Hinchman ("Defendants"). Dkt. 2. The Complaint included several allegations of Patent Infringement by Plaintiff SME. In its final infringement contentions dated December 28, 2018, Plaintiff withdrew allegations of infringement of one of its patents but retained the count of infringement of U.S. Patent No. 7,174,680 (the '680 Patent). The Parties have undergone the claim construction procedure set forth in the District of Utah Local Patent Rules, with

simultaneous Joint Motions for Claim Construction being due March 15, 2019, and any dispositive motions related thereto being due on the same date. Accordingly, Defendant files this Partial Summary Judgment motion seeking that this Court enter Partial Summary Judgment that Defendants do not infringe any of the asserted claims of the ‘680 Patent because any and all BRBs designed, manufactured, and/or sold do not contain a “bearing member” nor do they contain an “air gap” as required by the claims of the ‘680 Patent.

Statement of Undisputed Fact

The following facts are undisputed:

1. Defendant SBC designs, engineers, and manufactures BRBs. *Exh. 3 to Summary Judgment Appendix, ¶ 3.*
2. Defendant Andrew Hinchman is the owner of SBC. *Id. at ¶ 2.*
3. Plaintiff SME filed suit alleging patent infringement of U.S. Patent No. 7,174,680 against Defendants for the manufacture of braces. *Second Amended Complaint, Dkt. 063 ¶¶ 91–98.*
4. Plaintiff identified claims 1, 3, 4, 9, 11, 18, 26, and 27 of the ‘680 Patent as infringed. *Plaintiff’s Final Infringement Contentions, served December 28, 2018.*
5. All of Defendants’ BRBs made to date under the SBC company have only used corrugated cardboard positioned between a steel core and the buckling restraining assembly. *Exh. 3 to Summary Judgment Appendix, at ¶¶ 3, 12.*
6. Defendants do not remove the corrugated cardboard after manufacture of each BRB is complete. *Id. at ¶ 11.*
7. Defendants’ BRBs do not contain an air gap spanning from steel core to the concrete. *Id.*

8. Defendants' BRBs do not use any bearing member or any additional hard, durable member for the core to contact in the event the core was moving in the event of seismic movement. *Id. at ¶¶ 12, 13.*
9. In the event of a seismic movement affecting a building in which an SBC BRB is installed, the movement of the steel core relative to the buckling restraining assembly would cause the corrugated cardboard to shred between the steel core and the buckling restraining assembly. *Id. at ¶ 13.*
10. Each of the asserted claims of the '680 Patent requires two or more bearing members interposed between the rigid layer and the core member and an air gap "positioned" or "formed" by the separation of the bearing members from the core. Each independent claim (claims 1, 18, 26, and 27) are reproduced immediately following:
 1. A brace apparatus comprising:
a core member having a first end, a second end, and a middle portion;
a buckling restraining assembly surrounding at least the middle portion of the core member, the buckling restraining assembly comprising:
a metal support positioned external to the core member;
a rigid cementitious layer coupled to the metal support and surrounding the core member; and
at least two separate bearing members each of which is interposed between the rigid layer and the core member so that one side of the bearing member is in direct contact with the rigid layer, and an opposite side of the bearing member is not in direct contact with the core member such that an air gap is formed between the core member and the bearing members; the core member is comprised of a single piece of metal.

9. A brace apparatus adapted to absorb kinetic energy comprising:

- a steel core member having a first end, a second end, and a middle portion;
- one or more lateral supports adapted to provide additional support to at least one of the first and the second end of the steel core member;
- a buckling restraining assembly surrounding the middle portion of the steel core member, the buckling restraining assembly comprising:
 - a metal support positioned external to the core member;
 - a cementitious rigid layer coupled to the metal support and circumscribing the core member; and
 - a plurality of bearing members each of which is interposed between the rigid layer and the steel core member so that each bearing member has one side that is in direct contact with the rigid layer and an opposite side that is not in direct contact with the steel core member such that an air gap is formed between the bearing members and the core member.

18. A brace apparatus adapted to absorb energy by providing plastic deformation while being resistant to buckling, the brace apparatus comprising:

- a core member having a first end, a second end, and a middle portion;
- one or more lateral supports adapted to provide additional support to the core member;
- a buckling restraining assembly circumscribing the middle portion of the core member comprising:
 - a support tube surrounding a portion of the core member;
 - a rigid cementitious layer internal to the support tube; and
 - a plurality of bearing members interposed between the rigid layer and the core member such that one side of each bearing member is in direct contact with the rigid layer, and an opposite side is spaced apart from the core member so that it is not in direct contact with the core member such that an air gap is formed between the core member and the bearing members.

26. In an improved brace apparatus, adapted to absorb energy by providing plastic deformation of a core member during seismic activity so as to be resistant to buckling, the brace apparatus having a buckling restraining assembly comprising a concrete filled tube circumscribing at least a middle portion of the core member, the improvement comprising:

bearing members interposed between the core member and the concrete filling of said tube, each said bearing members comprising a first surface in direct contact with the concrete filling, and a second surface that is opposite to the first surface and that is not in direct contact with the core member such that an air gap is formed between the core member and the; the core member is comprised of a single piece of metal bearing members.

27. A brace apparatus comprising:

a core member ha between the second bearing member and the core middle portion; member second side, one side of each bearing member a buckling restr; is in direct contact with the rigid layer. middle portion of the core member, the buckling restraining assembly comprising:

a metal support positioned external to the core member; a cementitious rigid layer coupled to the metal support and circumscribing the core member; and

a plurality of bearing members interposed between the rigid layer and the core member wherein a first bearing member is positioned adjacent to a core member first side and a second bearing member is positioned adjacent a core member second side, such that an air gap is positioned between the first bearing member and the core member first side and an air gap is positioned

between the second bearing member and the core member second side, one side of each bearing member is in direct contact with the rigid layer.

Legal Standards Governing Summary Judgment

Summary judgment is appropriate where there is no genuine issue of material fact, and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). While the burden of demonstrating the absence of any material factual dispute rests with the moving party, to defeat a summary judgment motion the

nonmoving party must do “more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 586 (1986). Instead, the nonmoving party must set forth “specific facts showing that there is a genuine issue for trial.” *Id.* at 587.

I. No reasonable jury could find that Defendant infringes any of the asserted claims because Defendants do not include a “bearing member” or an “air gap” as required by the claims.

The question of infringement is particularly amenable to summary judgment where, as here, there is no material dispute over the relevant facts regarding the accused technology. *Gen. Mills, Inc. v. Hunt-Wesson, Inc.*, 103 F.3d 978, 980-81 (Fed. Cir. 1997). A patent infringement analysis involves two steps: (1) claim construction, and (2) application of the properly construed claim to the accused product or method. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995) (*en banc*), *aff’d*, 517 U.S. 370 (1996). "Summary judgment of noninfringement is proper when no reasonable jury could find that every limitation recited in a properly construed claim is found in the accused device either literally or under the doctrine of equivalents." *Advanced Steel Recovery, LLC v. X-Body Equipment, Inc.* 808 F.3d 1313, 1317 (Fed. Cir. 2015).

Each of Plaintiff’s asserted claims includes the limitation of “bearing member” or “air gap” as required in each of Plaintiff’s asserted independent claims. Defendants’ BRBs do not contain either a bearing member or an air gap as required to infringe Plaintiff’s claims.

A. Defendants do not literally infringe the requirement of having a “bearing member” in any brace nor do Defendants have an “air gap” between a bearing member and a rigid section.

“Direct infringement requires a party to perform or use each and every step or element of a claimed method or product.” *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1378–

1379 (*Fed. Cir. 2007*) (*citing Warner-Jenkinson Corp. v. Hilton Davis Corp.*, 520 U.S. 17, 117 S.Ct. 1040, 137 L.Ed.2d 146 (1997)). Further, dependent claims are not infringed when independent claims are not infringed¹. *Kim v. ConAgra Foods, Inc.*, 465 F.3d 1312, 1316, n. 1 (*Fed. Cir. 2006*).

1. *Corrugated Cardboard is not a bearing member.*

While Plaintiff and Defendants have provided differing definitions of the term “bearing member” in the proposed claim constructions, Defendants do not infringe under either definition because Defendants’ corrugated cardboard is not “an object, surface or point that supports” the core from contacting the concrete or rigid layer of the buckling restraining assembly.

- a. Defendants’ Corrugated Cardboard is not “an object, surface or point that supports” in the event of a seismic movement.

Each Party’s definition of “bearing member” includes the definition “an object, surface or point that supports.” The ‘680 patent makes clear that this “support” function is such that the bearings “adapted to minimize friction between the core member and the buckling restrained apparatus.” *Exh. 1 to Summary Judgment Appendix*, Abstract, p.1; Column 1 lines 8–12; Column 2 lines 41–44; Column 4 lines 3–5. At Column 6, lines 23–26 states “bearing members 60a,b are adapted to limit the amount of friction caused by the movement of part or all of core member 10 relative to part or all of the buckling restraining assembly.” The ‘680 Patent further states “[b]earing members 60a, b permits the brace apparatus 1 to undergo many cycles of compression and extension without significantly deteriorating bearing members.”

Thus, the specification teaches that the purpose of the bearing members is to prevent contact between the core and the brace apparatus (the buckling restraining assembly) by

¹ Defendants will accordingly address only Independent Claims 1, 18, 26, and 27.

providing “an object, surface or point that supports” the movement of the core member against the concrete member in the event of seismic movement that causes the core to deform.

In contrast, any reasonable juror would recognize that corrugated cardboard could not withstand the force generated between the core and the buckling restraining member in the event of a seismic movement. It is well within the knowledge of this Court that corrugated cardboard shipping boxes do not always even withstand the rigors of an overzealous postal employee in transporting a shipping box, let alone the force within a BRB when an earthquake shakes a building. Accordingly, no reasonable jury could find that Defendants’ cardboard serves as a bearing member under any of claims 1, 3, 4, 9, 11, 18, 26, and 27

b. Defendants’ Corrugated Cardboard is not a “durable, hard material.”

Corrugated Cardboard, that present in moving boxes and shipping boxes as widely used in society, is typically composed of a corrugated piece of paper sandwiched between two pieces of outer paper. A cross section of this material is shown in Plaintiff’s Final Infringement Contentions. *Exh. 2 to Summary Judgment Appendix.* This Court and any reasonable jury can easily understand that Corrugated Cardboard is not a hard, durable material nor is it capable of preventing friction between the core and the buckling restraining apparatus in the event of a seismic movement, such as an earthquake. Thus there is no question of material fact for a jury to decide, corrugated cardboard is simply not a bearing.

c. Arguendo, even if Plaintiff’s claims that corrugated cardboard is a bearing member, the corrugated cardboard in Defendants’ claims appears as a single member.

Each of Plaintiff’s asserted independent claims requires either “two or more” bearing members” or a “plurality of bearing members.” As shown in the photographs, Defendant’s corrugated cardboard is not separated into discernible, separable bearings and instead provides a

unitary appearance. Accordingly, there are not “two or more bearing members” or “a plurality of bearing members.”

2. *Corrugated Cardboard is not an air gap.*

Defendants’ BRBs do not contain any air gap that meets the requirements of Plaintiff’s claimed air gap. Plaintiff specifies in its patent that the air gap(s) serves to “prevent bonding of the core member and buckling restraining assembly” and to “provide a void between core member 10 and the bearing members of the buckling restraining assembly 30 when the brace apparatus is not supporting a load.” *Exh. 1 to Summary Judgment Appendix, Column 7 lines 38–41.* Defendant does not have any air gap that serves this purpose. Instead, there is no void between the core member and any purported bearing member as there is only corrugated cardboard between Defendants’ core member and the buckling restraining member. *Exh. 3 to Summary Judgment Appendix, ¶ 3, 11, 12.* Any air in the corrugated cardboard (as claimed by Plaintiff in its infringement contentions) is present because of the corrugations in the cardboard. But this air is not what is providing separation between the core member and the purported bearing member nor is it a “gap” in the term “air gap”. It is a pocket of air in the corrugations of cardboard. Indeed, the *corrugated cardboard* is providing the spacing between the core member and the purported bearing member (one side of the cardboard according to Plaintiff’s infringement contentions), not any air gap.

Independent asserted claims 1, 9, 18, 26 all specify that the bearing members are “interposed between the core member and the [] rigid layer [or cement of claim 26] such that one side of each bearing member is in direct contact with the rigid layer, and an opposite side is spaced apart from the core member so that it is not in direct contact with the core member such that an air gap is formed between the core member and the bearing member.” In stark contrast, as

is clearly shown in the photos in Plaintiff's Final Infringement contentions, any air space in the corrugated cardboard is formed between the corrugated paper layer and one or the other outer layer of the cardboard. There is no *air gap* formed due to the spacing apart of the bearing member and the core, the air gap is formed by the spacing apart of the cardboard layers.

Independent Claim 27 claims the air gap in slightly different function, as being the following:

wherein a first bearing member is positioned adjacent to a core member first side and a second bearing member is positioned adjacent a core member second side, such that an air gap is positioned between the first bearing member and the core member first side and an air gap is positioned between the second bearing member and the core member second side.

This claim clearly defines one air gap as being defined by the core member first side and the first bearing member and another air gap as being defined by the core member second side and the second bearing member. Again, any air space in the corrugated cardboard is formed by the space defined by the corrugations in the middle layer of paper and either of the two outer layers of paper. Accordingly, Defendants' BRBs do not literally infringe Plaintiff's asserted claims.

B. Defendants do not infringe under the Doctrine of Equivalents because Defendants' braces do not contain anything equivalent to a "bearing member" or an "air gap."

While infringement under the doctrine of equivalents is a question of fact, [w]here the evidence is such that no reasonable jury could determine two elements to be equivalent." *Warner-Jenkinson*, 520 U.S. at 39 n.8. Further, "all claim limitations are not entitled to an equal scope of equivalents." *Moore USA, Inc. v. Standard Register Co.*, 229 F.3d 1091, 1106 (Fed. Cir. 2000) ("many limitations warrant little, if any, range of equivalents.") The Doctrine of equivalents is further limited in that "if a theory of equivalence would entirely vitiate

a particular claim element, partial or complete judgment should be rendered by the court” *Warner-Jenkinson*, 520 U.S. at 39 n.8.

Plaintiff’s attempts to separate corrugated cardboard into its constituent pieces by identifying one sheet of paper as a bearing and the spacing in the corrugations in the center piece defeats the purpose of the corrugated cardboard and negates the meaning behind Plaintiff’s claims. Plaintiff specifies that a bearing member is used to prevent the core from contacting the concrete in the event of a seismic movement. No reasonable jury could find that corrugated cardboard performs this function or is the alternative to a hard, durable object. Further, Plaintiff specified that an adhesion preventive film as well as an asphaltic layer are not bearing members. Declaring corrugated cardboard to be the equivalent of Plaintiff’s bearing member would render each of the prior art that Plaintiff overcame as a bearing member, and would serve to invalidate Plaintiff’s claims. It is common knowledge that corrugated cardboard is would not and could not serve the same purpose as a durable, hard member.

Similarly, any argument by Plaintiff that corrugated cardboard is the same as an air gap must fail. Plaintiff specified that an air gap would not be used in conjunction with Takeuchi, as discussed in Defendants’ cross motion for claim construction. Defendants are using corrugated cardboard to prevent the core member from bonding to the buckling restraining member in manufacture and to keep this separation when the core member is not supporting a load. There is no air gap providing this function, and to equate a physical object (corrugated cardboard) to an air gap would render Plaintiff’s claims of an “air gap” superfluous.

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Conclusion

For the above reasons, Defendants Motion for Partial Summary Judgment of Non-infringement of the ‘680 Patent should be granted.

Respectfully submitted this 15th day of March, 2019.

SHAYER & SWANSON, LLP

/s/Scott D. Swanson
SCOTT D. SWANSON
Attorney for Defendants

CERTIFICATE OF SERVICE

I hereby certify that on this 15th day of March, 2019, I caused a copy of the foregoing to be filed using the Court's CM/ECF electronic filing system, which provides service to all counsel of record.

/s/Amy J. Hennig
Amy J. Hennig